

# American Journal of ORTHODONTICS

---

*Official publication of the American Association of Orthodontists,  
its constituent societies, and the American Board of Orthodontics*

## *Editors*

**Wayne G. Watson, D.D.S.,** *Editor-in-Chief*

Mailing Address: Post Office Box 1886, La Jolla, California 92038  
Street address: 7736 Fay Ave., Suite 103, La Jolla, California 92037  
Telephone: (619)459-1749

**Earl E. Shepard, D.D.S.,** *Business Editor*

225 South Meramec Avenue, St. Louis, Missouri 63105

**T. M. Graber, D.M.D., Ph.D.,** *Editor of Reviews and Abstracts*

450 Green Bay Road, Kenilworth, Illinois 60043

**B. F. Dewel, D.D.S.,** *Editor Emeritus*

2007 Bennett Avenue, Evanston, Illinois 60201

**J. A. Salzmann, D.D.S.,** *Editor Emeritus of Reviews and Abstracts*

25 Sutton Place South, New York, New York 10022

## *Editorial Board*

**Wayne G. Watson, D.D.S.,** *Chairman*

P.O. Box 1886, La Jolla, California 92038

**Marvin C. Goldstein, D.D.S.**

1218 West Paces Ferry Road, N.W., Atlanta, Georgia 30327

**James A. McNamara, Jr., D.D.S., Ph.D.**

311 N. Ingalls, Ann Arbor, Michigan 48104

**Donald R. Poulton, D.D.S.**

2155 Webster St., San Francisco, California 94115

**Everett Shapiro, D.D.S.**

1146 Beacon Street, Brookline, Massachusetts 02146

**Jerome M. Zweig, D.D.S.**

VOLUME 84

JULY-DECEMBER, 1983

VOLUME 84

COPYRIGHT © 1983 BY  
THE C. V. MOSBY COMPANY

*All rights reserved*  
*Printed in the United States of America*

# Author index

## A

- ABDEL KADER, H. M. Vertical lip height and dental height changes in relation to the reduction of overjet and overbite in Class II, Division 1 malocclusion, 260

## B

- BASS, NEVILLE M. Orthopedic coordination of dentofacial development in skeletal Class II malocclusion in conjunction with edgewise therapy. Parts I and II, 361, 466
- BAUMRIND, SHELDON, KORN, EDWARD L., ISAACSON, ROBERT J., WEST, EUGENE E., AND MOLTHEN, ROBERT. Quantitative analysis of the orthodontic and orthopedic effects of maxillary traction, 384
- , —, —, —, AND —. Superimpositional assessment of treatment-associated changes in the temporomandibular joint and the mandibular symphysis, 443
- , MOFFITT, FRANCIS H., AND CURRY, SEAN. The geometry of three-dimensional measurement from paired coplanar x-ray images, 313
- , —, AND —. Three-dimensional x-ray stereometry from paired coplanar images: A progress report, 292
- BECKER, ADRIAN, KOHAVI, DAVID, AND ZILBERMAN, YERUCHAM. Periodontal status following the alignment of palatally impacted canine teeth, 332
- BIGGERSTAFF, ROBERT H. (See QUAST, BIGGERSTAFF, AND HALEY), 29
- BISHARA, SAMIR E., FAHL, JULIE A., AND PETERSON, LARRY C. Longitudinal changes in the ANB angle and Wits appraisal: Clinical implications, 133
- BJERKLIN, KRISTER, AND KUROL, JÜRI. Ectopic eruption of the maxillary first permanent molar: Etiologic factors, 147
- BOOIJ, J. W., AND MARKENS, I. S. Occurrence of oxytalan fibers in the temporomandibular joint of the rat, 166
- BOOKSTEIN, FRED. (See GRAYSON, MCCARTHY, AND BOOKSTEIN), 217
- BORAL, STEVEN. (See GRAYSON ET AL.), 225
- BURSTONE, CHARLES. (See MANSOUR, BURSTONE, AND LEGAN), 37
- AND GOLDBERG, A. JON. Maximum forces and deflections from orthodontic appliances, 95

## C

- CAMPBELL, PHILLIP M. American Board of Orthodontics case report, 69
- CARLTON, DAVID M. (See KINNEBREW, HOFFMAN, AND CARLTON), 508
- CHATEAU, M., PETIT, H., ROCHE, M., AND CRAIG, W. Functional orthopedics: The "four pieces" and Class II treatment, 191
- CRAIG, W. (See CHATEAU ET AL.), 191
- CROSS, NYLA GREER, TAYLOR, ROBERT F., AND NUNEZ, LOYS J. "Single-step" orthodontic bonding systems: Possible mutagenic potential, 344
- CURRY, SEAN. (See BAUMRIND, MOFFITT, AND CURRY), 292, 313

## E

- ECONOMIDES, JAMES K. The in-house computer for the orthodontic office, 115

July, pp. 1-94; August, pp. 95-182; September, pp. 183-274; October, pp. 275-360; November, pp. 361-442; December, pp. 443-540.

- EDWARDS, JOHN G. Orthopedic effects with "conventional" fixed orthodontic appliances: A preliminary report, 275
- EISIG, SIDNEY. (See GRAYSON ET AL.), 225
- EPKER, BRUCE N., AND FISH, LEWARD C. The surgical-orthodontic correction of mandibular deficiency. Parts I and II, 408, 491

## F

- FAHL, JULIE A. (See BISHARA, FAHL, AND PETERSON), 133
- FISH, LEWARD C. (See EPKER AND FISH), 408, 491
- FRANKEL, CHRISTINE. (See FRANKEL AND FRANKEL), 54
- FRANKEL, ROLF, AND FRANKEL, CHRISTINE. A functional approach to treatment of skeletal open bite, 54

## G

- GOLDBERG, A. JON. (See BURSTONE AND GOLDBERG), 95
- GRAYSON, BARRY H., BORAL, STEVEN, EISIG, SIDNEY, KOLBER, ALLAN, AND MCCARTHY, JOSEPH C. Unilateral craniofacial microsomia. Part I. Mandibular analysis, 225
- , MCCARTHY, JOSEPH G., BOOKSTEIN, FRED. Analysis of craniofacial asymmetry by multiplane cephalometry, 217

## H

- HALEY, JOHN V. (See QUAST, BIGGERSTAFF, AND HALEY), 29
- HARARI, D. (See STEIGMAN, HARARI, AND MICHAELI), 254
- HENRIKSEN, JØRN. (See WENZEL, HENRIKSEN, AND MELSE), 422
- HITCHCOCK, H. PERRY. The curve of Spee in Stone Age man, 248
- HOFFMAN, DAVID R. (See KINNEBREW, HOFFMAN, AND CARLTON), 508
- HOLDAWAY, REED A. A soft-tissue cephalometric analysis and its use in, orthodontic treatment planning. Part I, 1

## I

- ICHINOSE, MOTOSHI. (See NAKASIMA AND ICHINOSE), 140
- ISAACSON, ROBERT J. (See BAUMRIND ET AL.), 384, 443

## J

- JACOBS, JOE D., AND SINCLAIR, PETER M. Principles of orthodontic mechanics in orthognathic surgery cases, 399
- JACOBSSON, STEN. (See RUNE ET AL.), 231
- JACOBY, HARRY. The etiology of maxillary canine impactions, 125
- JOONDEPH, DONALD R. (See KENNEDY ET AL.), 183

## K

- KAWAR, M. (See STEIGMAN, KAWAR, AND ZILBERMAN), 337
- KAZANOGLU, A. (See TSAO, KAZANOGLU, AND MCCASLAND), 212, 520
- KENNEDY, DAVID B., JOONDEPH, DONALD R., OSTERBERG, STIG K., AND LITTLE, ROBERT M. The effect of extraction and orthodontic treatment on dentoalveolar support, 183
- KENT, JOHN N. (See KINNEBREW AND KENT), 104
- KINNEBREW, MICHAEL C., HOFFMAN, DAVID R., AND CARLTON, DAVID M. Projecting the soft-tissue outcome of surgical and orthodontic manipulation of the maxillofacial skeleton, 508
- AND KENT, JOHN N. Late definitive correction of the orofacial cleft, 104
- KOHAVI, DAVID. (See BECKER, KOHAVI, AND ZILBERMAN), 332
- KOLBER, ALLAN. (See GRAYSON ET AL.), 225
- KORN, EDWARD L. (See BAUMRIND ET AL.), 384, 443
- KUROL, JÜRI. (See BJERKLIN AND KUROL), 147

## L

- LEGAN, HARRY. (See MANSOUR, BURSTONE, AND LEGAN), 37  
 LITTLE, ROBERT M. (See KENNEDY ET AL.), 183  
 LOWE, ALAN A., TAKADA, KENJI, AND TAYLOR, LINDA M. Muscle activity during function and its correlation with craniofacial morphology in a sample of subjects with Class II, Division 1 malocclusions, 204

## M

- MCCARTHY, JOSEPH G. (See GRAYSON ET AL.), 225  
 —. (See GRAYSON, MCCARTHY, AND BOOKSTEIN), 217  
 MCCASLAND, J. P. (See TSAO, KAZANOGLU, AND MCCASLAND), 212, 520  
 MANSOUR, STEPHEN, BURSTONE, CHARLES, AND LEGAN, HARRY. An evaluation of soft-tissue changes resulting from Le Fort I maxillary surgery, 37  
 MARKENS, I. S. (See BOOIJ AND MARKENS), 166  
 MENSEN, BIRTE. (See WENZEL, HENRIKSEN, AND MENSEN), 422  
 MICHAELI, Y. (See STEIGMAN, HARARI, AND MICHAELI), 254  
 MIZRAHI, ELIAKIM. Surface distribution of enamel opacities following orthodontic treatment, 323  
 MOFFITT, FRANCIS H. (See BAUMRIND, MOFFITT, AND CURRY), 292, 313  
 MOLTHEN, ROBERT. (See BAUMRIND ET AL.), 384, 443

## N

- NAKASIMA, AKIHIKO, AND ICHINOSE, MOTOSHI. Characteristics of craniofacial structures of parents of children with cleft lip and/or palate, 140  
 NUNEZ, LOYS J. (See CROSS, TAYLOR, AND NUNEZ), 344

## O

- OSTERBERG, STIG K. (See KENNEDY ET AL.), 183

## P

- PARK, H. Y., AND SHEARER, T. R. In vitro release of nickel and chromium from simulated orthodontic appliances, 156  
 PETERSON, LARRY C. (See BISHARA, FAHL, AND PETERSON), 133  
 PETIT, H. (See CHATEAU ET AL.), 191

## Q

- QUAST, DAVID C., BIGGERSTAFF, ROBERT H., AND HALEY, JOHN V. The short-term and long-term soft-tissue profile changes accompanying mandibular advancement surgery, 29

## R

- ROCHE, M. (See CHATEAU ET AL.), 191  
 RUNE, BODIL, SARNÄS, KARL-VICTOR, SELVIK, GÖRAN, AND JACOBSSON, STEN. Roentgen stereometry with the aid of metallic implants in hemifacial microsomia, 231

## S

- SARNÄS, KARL-VICTOR. (See RUNE ET AL.), 231  
 SCHMUTH, GOTTFRIED P. F. Milestones in the development and practical application of functional appliances, 48  
 SELVIK, GÖRAN. (See RUNE ET AL.), 231  
 SHEARER, T. R. (See PARK AND SHEARER), 156  
 SHERIDAN, JOHN J. The dowel-up bite registration for functional appliances requiring a protrusive and open jaw position: A clinical report, 427  
 SINCLAIR, PETER M. (See JACOBS AND SINCLAIR), 399  
 STEIGMAN, S., HARARI, D., AND MICHAELI, Y. Long-term effect of intrusive loads of varying magnitude upon the eruptive potential of rat incisors, 254  
 —, KAWAR, M., AND ZILBERMAN, Y. Prevalence and severity of malocclusion in Israeli Arab urban children 13 to 15 years of age, 337

## T

- TAKADA, KENJI. (See LOWE, TAKADA, AND TAYLOR), 204  
 TAYLOR, LINDA M. (See LOWE, TAKADA, AND TAYLOR), 204  
 TAYLOR, ROBERT F. (See CROSS, TAYLOR, AND NUNEZ), 344  
 TSAO, D. H., KAZANOGLU, A., AND MCCASLAND, J. P. Measurability of radiographic images, 212; erratum, 520

## V

- VILMANN, H. The growth of the first cervical vertebra in the rat, 160

## W

- WENZEL, ANN, HENRIKSEN, JØRN, AND MENSEN, BIRTE. Nasal respiratory resistance and head posture: Effect of intranasal corticosteroid (Budesonide) in children with asthma and perennial rhinitis, 422  
 WEST, EUGENE E. (See BAUMRIND ET AL.), 384, 443

## Z

- ZILBERMAN, YERUCHAM. (See BECKER, KOHAVI, AND ZILBERMAN), 332  
 —. (See STEIGMAN, KAWAR, AND ZILBERMAN), 337

## Reviews and abstracts

## A

- Ahlgren, J., 269  
 Anehus-Pancherz, M., 269

## B

- Bendeus, M., 269  
 Bjork, Arne, 88  
 Boyd, Robert L., 434  
 Brown, S. R., 90  
 Brown, T., 177

## C

- Chang, Alan S. T., 437  
 Chevangkul, N., 90  
 Chiba, M., 178  
 Clemensson, Elisabet, 89  
 Cotterell, Terry Linda, 438

## E

- Ewald, Franklin H., 90

## F

- Faris, Charles, 439  
 Foster, T. D., 268  
 Freund, V., 176

## G

- Gardner, Donald E., 434  
 Gross, Martin D., 524

## H

- Hannamz, A. G., 356  
 Harris, Vivian J., 436  
 Hellsing, G., 355  
 Hotz, Margaret, 355

- Howe, Raymond P., 175

## I

- Iguchi, Shuichiro, 523  
 Irie, Michinobu, 523

## K

- Kameda, Akira, 524  
 Keur, Johannes J., 434  
 Klein de Tolcachir C., C., 356  
 Klineberg, I., 178, 355  
 Koeck, B., 523  
 Kopp, Sigvard, 89  
 Kuwahara, Y., 178

## L

- Lader, Errol, 353

Lawrence, Felix R., 436  
Leighton, B. C., 88  
Lewis, G. R., 356  
Linder-Aronson, S., 88  
Lowe, A., 176  
Luder, H. U., 354  
Lutz, Heinrick Dieter, 438

# M

McNamara, James A., Jr., 175  
Malina, Robert M., 354  
Mathews, James D., 524  
Mayoral, Guillermo, 176  
Mayoral, Jose, 176  
Mayoral, Pedro, 176  
Mills, J. R. E., 436  
Miyakawa, Osamu, 523  
Muller, Louis, 435  
Murray, G. M., 87

# N

Nakatani, Y., 178  
Nanda, Surender K., 354  
Nishijima, Kunihiro, 523  
Nyström, Marjatta, 436

# O

Ohkawa, S., 178

# P

Pancherz, H., 269  
Pappas, Charles N., 268  
Pressman, Robertson M., 175

# R

Ribbens, Katherine A., 175  
Richards, L. C., 177  
Robertson, N. R. E., 353  
Roche, Alex F., 354  
Rodriguez, Justo, 436  
Rygh, Per, 177

# S

Sakuda, M., 177  
Savage, Malcolm, 87  
Scott, James H., 435  
Siegler, Rodie, 175  
Siersbaek-Nielsen, S., 176  
Sina, N., 91  
Skieller, Vibeke, 88  
Skinner, Mark F., 175

Solow, B., 176  
Sperber, Geoffrey H., 175  
Starkey, Paul E., 434  
Suzuki, Hiroyuki, 523  
Symons, Norman B. B., 435

# T

Takada, K., 176, 177, 356  
Tindlund, Rolf, 177  
Tsuruta, M., 178

# V

Vecere, J. W., 89

# W

Warren, Fredric R., 437  
Wenneberg, Bengt, 89  
Westesson, Per Lennart, 88  
Wiehl, P., 178  
Wood, W. W., 356  
Wright, Gerald Z., 434

# Y

Yemm, R., 356  
Yoshida, K., 177

## Subject index

# A

Activator appliance, changes in length and torque of masticatory muscles produced by, 269 (Abst.)  
effects and working ways of, 354 (Abst.)  
mode of action; milestones in development and practical application of functional appliances (Schmuth), 48  
Alignment of palatally impacted canine teeth, periodontal status following (Becker, Kohavi, and Zilberman), 332  
American Association of Orthodontists annual meeting, 1983, awards presented at, 358  
overview of, 180  
1984, 270  
Board of Trustees 1982-1983, 270  
Councils 1983-1984, 271  
Dr. Wolfe assumes presidency, 440  
meeting calendar, 93, 179, 273, 357, 439, 529  
officers and organizations, directory, 94, 182, 274, 360, 442, 530  
recognizes contributions of Michael Buonocore, 181  
research awards (Milo Hellman Research Award and Harry Sicher First Research Essay Award), information for, 273  
prizes for 1984, 272  
American Board of Orthodontics, candidates certified by, 441  
case report (Campbell), 69  
honors two directors who have completed 7-year terms, 270  
written examinations, Illinois accepting, for state licensure, 529  
AMERICAN JOURNAL OF ORTHODONTICS, 1983 consultants, 525  
Ames test; "single-step" orthodontic bonding systems (Cross, Taylor, and Nunez), 344  
Analysis, cephalometric; unilateral craniofacial microsomia (Grayson et al.), 225

July, pp. 1-94; August, pp. 95-182; September, pp. 183-274; October, pp. 275-360; November, pp. 361-442; December, pp. 443-540.

# Analysis—Cont'd

discriminant; characteristics of craniofacial structures of parents of children with cleft lip and/or palate (Nakasima and Ichinose), 140  
ectopic eruption of maxillary first permanent molar (Bjerklin and Kurol), 147  
soft-tissue cephalometric, and its use in orthodontic treatment planning (Holdaway), 1  
Anatomy, dental, introduction to, 435 (B. rev.)  
ANB angle and Wits appraisal, longitudinal changes in (Bishara, Fahl, and Peterson), 133  
Andresen-Häupl appliances; milestones in development and practical application of functional appliances (Schmuth), 48  
Appliance, activator, changes in length and torque of masticatory muscles produced by, 269 (Abst.)  
functional, milestones in development and practical application of (Schmuth), 48  
requiring protrusive and open jaw position, dowel-up bite registration for (Sheridan), 427  
orthodontic, alterations produced in dental enamel by, 356 (Abst.)  
"conventional" fixed, orthopedic effects with (Edwards), 275  
maximum forces and deflections from (Burstone and Goldberg), 95  
preliminary report into development and use of soluble controlled-release glass timing discs implanted into, 87 (Abst.)  
simulated, in vitro release of nickel and chromium from (Park and Shearer), 156  
Arab urban children, Israeli, 13 to 15 years of age, prevalence and severity of malocclusion in (Steigman, Kavar, and Zilberman), 337  
Arch length; etiology of maxillary canine impactions (Jacoby), 125  
Arthrography, double contrast, and internal derangement of temporomandibular joint, 88 (Abst.)

- Assessment records; prevalence and severity of malocclusion in Israeli Arab urban children 13 to 15 years of age (Steigman, Kawar, and Zilberman), 337
- Asthma and perennial rhinitis, effect of intranasal corticosteroid (Budesonide) in children with; nasal respiratory resistance and head posture (Wenzel, Henriksen, and Melsen), 422
- Asymmetry, craniofacial, analysis of, by multiplane cephalometry (Grayson, McCarthy, and Bookstein), 217
- Attrition; curve of Spee in Stone Age man (Hitchcock), 248

**B**

- Bacterial mutagenicity; "single-step" orthodontic bonding systems (Cross, Taylor, and Nunez), 344
- Begg and edgewise postretention cases, dentition analysis between, 90 (Abst.)
- Biostereometrics; geometry of three-dimensional measurement from paired coplanar x-ray images (Baumrind, Moffitt, and Curry), 313
- three-dimensional x-ray stereometry from paired coplanar images (Baumrind, Moffitt, and Curry), 292
- Bite jumping, continuous, with Herbst appliance, effect of, on masticatory system, 269 (Abst.)
- registration, dowel-up, for functional appliances requiring protrusive and open jaw position (Sheridan), 427
- Black adults, cephalometric analysis of, 90 (Abst.)
- dentition exhibiting good occlusion, cephalometric radiographic analysis in norma lateralis of, 91 (Abst.)
- Black, G. V., life and times of, 268 (B. rev.)
- Bonding systems, orthodontic, "single-step"; possible mutagenic potential (Cross, Taylor, and Nunez), 344
- Bone graft and maxillary osteotomy; late definitive correction of orofacial cleft (Kinnebrew and Kent), 104
- growth, on "V" principle of, 267 (Letter to editor)
- loss; periodontal status following alignment of palatally impacted canine teeth (Becker, Kohavi, and Zilberman), 332
- Budesonide, effect of intranasal corticosteroid in children with asthma and perennial rhinitis; nasal respiratory resistance and head posture (Wenzel, Henriksen, and Melsen), 422
- Buonocore, Michael—pioneer in adhesives, 181

**C**

- Canine, maxillary, impactions, etiology of (Jacoby), 125
- retraction and periodontal surgery, extraction space closure stability following, 89 (Abst.)
- teeth, palatally impacted, periodontal status following alignment of (Becker, Kohavi, and Zilberman), 332
- Case, Calvin S., Award to Rolf Fränkel, 440
- Cephalometric analysis of black adults, 90 (Abst.)
- soft-tissue, and its use in orthodontic treatment planning (Holdway), 1
- unilateral craniofacial microsomia (Grayson et al.), 225
- criteria of mixed-dentition treatment, evaluation of, 439 (Abst.)
- radiographic analysis in norma lateralis of adult Negro dentition exhibiting good occlusion, 91 (Abst.)
- standards; longitudinal changes in ANB angle and Wits appraisal (Bishara, Fahl, and Peterson), 133
- Cephalometrics and orthodontics, 435 (B. rev.)
- characteristics of craniofacial structures of parents of children with cleft lip and/or palate (Nakasima and Ichinose), 140
- Cephalometry; measurability of radiographic images (Tsao, Kazanoglu, and McCasland), 212; erratum, 520
- multiplane, analysis of craniofacial asymmetry by (Grayson, McCarthy, and Bookstein), 217
- roentgenographic, 77-(Guest editorial)
- geometry of three-dimensional measurement from paired coplanar x-ray images (Baumrind, Moffitt, and Curry), 313
- three-dimensional x-ray stereometry from paired coplanar images (Baumrind, Moffitt, and Curry), 292

- Childhood, manual of physical status and performance in, 354 (B. rev.)
- Children, behavior of, in dental office, managing, 434 (B. rev.)
- Finnish, development of deciduous dentition in series of, 436 (Abst.)
- Chromium and nickel, in vitro release of, from simulated orthodontic appliances (Park and Shearer), 156
- Class II molar relationship and concomitant midline shift; American Board of Orthodontics case report (Campbell), 69
- treatment, "four pieces" and; functional orthopedics (Chateau et al.), 191
- Cleft lip and/or palate, craniofacial structures of parents of children with (Nakasima and Ichinose), 140
- and palate, oral orthopedics for, 353 (B. rev.)
- orofacial, late definitive correction of (Kinnebrew and Kent), 104
- palate patients, orthopedic expansion and protraction of maxilla in, 177 (Abst.)
- Computer, in-house, for orthodontic office (Economides), 115
- Condyle; curve of Spee in Stone Age man (Hitchcock), 248
- remodeling; superimpositional assessment of treatment-associated changes in temporomandibular joint and mandibular symphysis (Baumrind et al.), 443
- Connecticut Orthodontic Society, 180
- Corrosion; in vitro release of nickel and chromium from simulated orthodontic appliances (Park and Shearer), 156
- Corticosteroid, intranasal (Budesonide), in children with asthma and perennial rhinitis; nasal respiratory resistance and head posture (Wenzel, Henriksen, and Melsen), 422
- Cranio-cervical angulation as predictor of craniofacial growth, 176 (Abst.)
- Craniofacial asymmetry, analysis of, by multiplane cephalometry (Grayson, McCarthy, and Bookstein), 217
- growth, cranio-cervical angulation as predictor of, 176 (Abst.)
- microsomia, unilateral. Part I. Mandibular analysis (Grayson et al.), 225
- morphology and jaw muscle activity at rest, interdependence of, 176 (Abst.)
- muscle activity during function and correlation with, in sample of subjects with Class II, Division I malocclusions (Lowe, Takada, and Taylor), 204
- structures of parents of children with cleft lip and/or palate (Nakasima and Ichinose), 140
- Curve of Spee in Stone Age man (Hitchcock), 248

**D**

- Demineralization; surface distribution of enamel opacities following orthodontic treatment (Mizrahi), 323
- Dental anatomy, introduction to, 435 (B. rev.)
- enamel, alterations produced in, by orthodontic appliances, 356 (Abst.)
- height and vertical lip height changes in relation to reduction of overjet and overbite in Class II, Division I malocclusion (Abdel Kader), 260
- office, managing children's behavior in, 434 (Abst.)
- Dentistry in Japan, 1981-1982, 87 (B. rev.)
- restorative, occlusion in, 524 (B. rev.)
- Dentition, adult Negro, exhibiting good occlusion, cephalometric radiographic analysis in norma lateralis of, 91 (Abst.)
- analysis between Begg and Edgewise postretention cases, 90 (Abst.)
- deciduous, development of, in series of Finnish children, 436 (Abst.)
- stability of expansion in, 438 (Abst.)
- Dentoalveolar support, effect of extraction and orthodontic treatment on (Kennedy et al.), 183
- Dentofacial development in skeletal Class II malocclusion, orthopedic coordination of, in conjunction with edgewise therapy (Bass), 361, 466
- orthopedics; functional approach to treatment of skeletal open bite (Fränkel and Fränkel), 54



- Dose response curve; "single-step" orthodontic bonding systems (Cross, Taylor, and Nunez), 344  
Dowel-up bite registration for functional appliances requiring protrusive and open jaw position (Sheridan), 427

## E

- Ectopic eruption of maxillary first permanent molar: etiologic factors (Bjerklin and Kurol), 147  
Edgewise and Begg postretention cases, dentition analysis between, 90 (Abst.)  
therapy, orthopedic coordination of dentofacial development in skeletal Class II malocclusion in conjunction with (Bass), 361, 466  
Editorial, guest; beyond roentgenographic cephalometry—what? 77  
current challenges and opportunities for orthodontics: an optimist's views, 264  
research biases, 351  
retention and the state of the art in orthodontics, 430  
surgical mandibular advancement and stability, 171  
TMJ dysfunction, 521  
Elastics, Class III, effect of, on cant of occlusal plane, 524 (Abst.)  
EMG approach to assessing tongue activity using miniature surface electrodes, 177 (Abst.)  
Enamel, dental, alterations produced in, by orthodontic appliances, 356 (Abst.)  
opacities, surface distribution of, following orthodontic treatment (Mizrahi), 323  
Eruption, ectopic, of maxillary first permanent molar; etiologic factors (Bjerklin and Kurol), 147  
Eruptive potential of rat incisors, long-term effect of intrusive loads of varying magnitude upon (Steigman, Harari, and Michaeli), 254  
Expansion in deciduous dentition, stability of, 438 (Abst.)  
Extraction and orthodontic treatment, effect of, on dentoalveolar support (Kennedy et al.), 183  
reverse, patterns; principles of orthodontic mechanics in orthognathic surgery cases (Jacobs and Sinclair), 399  
space closure stability following canine retraction and periodontal surgery, 89 (Abst.)

## F

- Face, growing, clinical alteration of, 75 (B. rev.)  
Facial morphology and degenerative changes in temporomandibular joint, 177 (Abst.)  
pattern and oligodontia, 438 (Abst.)  
Forces, continuous light; long-term effect of intrusive loads of varying magnitude upon eruptive potential of rat incisors (Steigman, Harari, and Michaeli), 254  
maximum, and deflections from orthodontic appliances (Burstone and Goldberg), 95  
Fränkel, function regulator of, 174 (Letter to editor)  
method; functional approach to treatment of skeletal open bite (Fränkel and Fränkel), 54  
Fränkel, Rolf, receives Calvin S. Case Award, 440  
Function regulator of Fränkel, 174 (Letter to editor)  
Functional appliances, milestones in development and practical application of (Schmuth), 48  
requiring protrusive and open jaw position, dowel-up bite registration for (Sheridan), 427  
approach to treatment of skeletal open bite (Fränkel and Fränkel), 54  
matrix; growth of first cervical vertebra in rat (Vilmann), 160  
orthopedics: "four pieces" and Class II treatment (Chateau et al.), 191

## G

- Genetics; characteristics of craniofacial structures of parents of children with cleft lip and/or palate (Nakasima and Ichinose), 140

- Genioplasty; surgical-orthodontic correction of mandibular deficiency (Epker and Fish), 408, 491  
Geometry of three-dimensional measurement from paired coplanar x-ray images (Baumrind, Moffitt, and Curry), 313  
Growth, bone, on "V" principle of, 267 (Letter to editor)  
craniofacial, cranio-cervical angulation as predictor of, 176 (Abst.)  
of first cervical vertebra in rat (Vilmann), 160  
of mandible, mandibular advancement and, 80 (Letter to editor)  
normal and abnormal, 88 (Abst.)

## H

- Handicapping Malocclusion Assessment Record; prevalence and severity of malocclusion in Israeli Arab urban children 13 to 15 years of age (Steigman, Kavar, and Zilberman), 337  
Head posture, nasal respiratory resistance and; effect of intranasal corticosteroid (Budesonide) in children with asthma and perennial rhinitis (Wenzel, Henriksen, and Melsen), 422  
Help sought in search for missing patient, 181  
Herbst appliance, continuous bite jumping with, effect of, on masticatory system, 269 (Abst.)

## I

- Illinois accepting ABO written examinations for state licensure, 529  
Impacted third molars, 83 (Letters to editor)  
Impactions, maxillary canine, etiology of (Jacoby), 125  
Implants, metallic, roentgen stereometry with aid of, in hemifacial microsomia (Rune et al.), 231  
In memoriam; Gmel G. Jacobs, 86  
James B. McCabe, 85  
William W. Merow, 85  
William R. Schmidt, 433  
Donald G. Watson, 433  
Incisors, rat, eruptive potential of, long-term effect of intrusive loads of varying magnitude upon (Steigman, Harari, and Michaeli), 254  
Intrusive loads of varying magnitude, long-term effect of, upon eruptive potential of rat incisors (Steigman, Harari, and Michaeli), 254

## J

- Japan, dentistry in, 1981-1982, 87 (B. rev.)  
Jarabak, Louise Ada, Memorial International Orthodontic Teachers and Research Award, 359  
Jaw jerk characteristics at different levels of tap force, 87 (Abst.)  
muscle activity at rest, interdependence of craniofacial morphology and, 176 (Abst.)  
forces in man, measurement of ability to control, 356 (Abst.)  
orthopedics; milestones in development and practical application of functional appliances (Schmuth), 48  
Jawbone, lesions of, 436 (B. rev.)

## L

- Le Fort I maxillary surgery, evaluation of soft-tissue changes resulting from (Mansour, Burstone, and Legan), 37  
Letters to editor, 80, 174, 267, 432  
Lip curvature, excessive, and strain; American Board of Orthodontics case report (Campbell), 69  
height, vertical, and dental height changes in relation to reduction of overjet and overbite in Class II, Division 1 malocclusion (Abdel Kader), 260  
-nose correction; late definitive correction of orofacial cleft (Kinnebrew and Kent), 104

## M

- Malocclusion, Class II; orthopedic effects with "conventional" fixed orthodontic appliances (Edwards), 275  
 quantitative analysis of orthodontic and orthopedic effects of maxillary traction (Baumrind et al.), 384  
 superimpositional assessment of treatment-associated changes in temporomandibular joint and mandibular symphysis (Baumrind et al.), 443  
 surgical-orthodontic correction of mandibular deficiency (Epker and Fish), 408  
 Division I, muscle activity during function and correlation with craniofacial morphology in sample of subjects with (Lowe, Takada, and Taylor), 204  
 reduction of overjet and overbite in, vertical lip height and dental height changes in relation to (Abdel Kader), 260  
 developmental basis of occlusion and, 354 (B. rev.)  
 prevalence and severity of, in Israeli Arab urban children 13 to 15 years of age (Steigman, Kavar, and Zilberman), 337  
 skeletal Class II, orthopedic coordination of dentofacial development in, in conjunction with edgewise therapy (Bass), 361, 466
- Mandible; movements of lower jaw during sleeping at night, 523 (Abst.)  
 normal and abnormal growth of, 88 (Abst.)  
 stress analysis of maxilla and, while occluding, 523 (Abst.)
- Mandibular advancement and mandibular growth, 80 (Letters to editor)  
 surgery, short-term and long-term soft-tissue profile changes accompanying (Quast, Biggerstaff, and Haley), 29  
 surgical, and stability, 171 (Guest editorial)
- deficiency, surgical-orthodontic correction of (Epker and Fish), 408, 491  
 deformity; unilateral craniofacial microsomia (Grayson et al.), 225  
 displacement; muscle activity during function and correlation with craniofacial morphology in sample of subjects with Class II, Division I malocclusions (Lowe, Takada, and Taylor), 204  
 growth enhancement; orthopedic coordination of dentofacial development in skeletal Class II malocclusion in conjunction with edgewise therapy (Bass), 466  
 plane angle, high; American Board of Orthodontics case report (Campbell), 69  
 symphysis, superimpositional assessment of treatment-associated changes in temporomandibular joint and (Baumrind et al.), 443
- Masseter muscle, silent period and its clinical significance, 355 (Abst.)
- Masticatory muscles, changes in length and torque of, produced by activator appliance, 269 (Abst.)  
 system, effect of continuous bite jumping with Herbst appliance on, 269 (Abst.)
- Maxilla and mandible, stress analysis of, while occluding, 523 (Abst.)  
 orthopedic expansion and protraction of, in cleft palate patients, 177 (Abst.)
- Maxillary canine impactions, etiology of (Jacoby), 125  
 growth restraint; orthopedic coordination of dentofacial development in skeletal Class II malocclusion in conjunction with edgewise therapy (Bass), 361  
 osteotomy and bone graft; late definitive correction of orofacial cleft (Kinnebrew and Kent), 104  
 surgery, Le Fort I, evaluation of soft-tissue changes resulting from (Mansour, Burstone, and Legan), 37  
 traction, quantitative analysis of orthodontic and orthopedic effects of (Baumrind et al.), 384
- Maxillofacial skeleton, projecting soft-tissue outcome of surgical and orthodontic manipulation of (Kinnebrew, Hoffman, and Carlton), 508

- Measurability of radiographic images (Tsao, Kazanoglu, and McCasland), 212; erratum, 520
- Measurement, three-dimensional, from paired coplanar x-ray images, geometry of (Baumrind, Moffitt, and Curry), 313  
 three-dimensional x-ray stereometry from paired coplanar images (Baumrind, Moffitt, and Curry), 292
- Mechanics, orthodontic, principles of, in orthognathic surgery cases (Jacobs and Sinclair), 399
- Mentalis muscle, hyperactive; American Board of Orthodontics case report (Campbell), 69
- Microsomia, craniofacial, unilateral (Grayson et al.), 225  
 hemifacial, roentgen stereometry with aid of metallic implants in (Rune et al.), 231
- Midline shift and unilateral Class II molar relationship; American Board of Orthodontics case report (Campbell), 69
- Midwestern Society of Orthodontists, 272
- Molar, maxillary first permanent, ectopic eruption of; etiologic factors (Bjerklin and Kurol), 147  
 third, impacted, 83 (Letters to editor)
- Movements of lower jaw during sleeping at night, 523 (Abst.)
- Muscle activity during function and correlation with craniofacial morphology in sample of subjects with Class II, Division I malocclusions (Lowe, Takada, and Taylor), 204  
 jaw, forces in man, measurement of ability to control, 356 (Abst.)  
 lateral pterygoid, function of inferior head of, 356 (Abst.)  
 masticatory, changes in length and torque of, produced by activator appliance, 269 (Abst.)
- Mutagenicity, bacterial; "single-step" orthodontic bonding systems (Cross, Taylor, and Nunez), 344
- Myoarthopathy, TMJ, oral physiotherapy for, 178 (Abst.)

## N

- Nasal dimensional changes associated with maxillary impaction surgery, 437 (Abst.)  
 respiratory resistance and head posture: effect of intranasal corticosteroid (Budesonide) in children with asthma and perennial rhinitis (Wenzel, Henriksen, and Melsen), 422
- Nasopharyngeal wall, posterior, development of, between 3 and 16 years of age, 88 (Abst.)
- New Jersey Association of Orthodontists, 92
- News and comment, 92, 180, 270, 358, 440, 525
- Nickel and chromium, in vitro release of, from simulated orthodontic appliances (Park and Shearer), 156
- Northeastern Society of Orthodontists, 270
- Norwegian system; milestones in development and practical application of functional appliances (Schmuth), 48

## O

- Occlusal plane, effect of Class III elastics on cant of, 524 (Abst.)  
 splints, 178 (Abst.)
- Occlusion and malocclusion, developmental basis of, 354 (B. rev.)  
 in restorative dentistry, 524 (B. rev.)
- Oligodontia, facial pattern and, 438 (Abst.)
- Opacities, enamel, following orthodontic treatment, surface distribution of (Mizrahi), 323
- Open bite, skeletal, functional approach to treatment of (Fränkel and Fränkel), 54
- Oral physiotherapy for TMJ myoarthopathy patients, 178 (Abst.)
- Orofacial cleft, late definitive correction of (Kinnebrew and Kent), 104  
 development under adverse conditions, 355 (Abst.)
- Orthocephalization; growth of first cervical vertebra in rat (Vilmann), 160



Orthodontic and orthopedic effects of maxillary traction, quantitative analysis of (Baumrind et al.), 384

and surgical manipulation of maxillofacial skeleton, projecting soft-tissue outcome of (Kinnebrew, Hoffman, and Carlton), 508

appliances, alterations produced in dental enamel by, 356 (Abst.)

"conventional" fixed, orthopedic effects with (Edwards), 275

maximum forces and deflections from (Burstone and Goldberg), 95

preliminary report into development and use of soluble controlled-release glass timing discs implanted into, 87 (Abst.)

simulated, in vitro release of nickel and chromium from (Park and Shearer), 156

bonding systems, "single-step," possible mutagenic potential (Cross, Taylor, and Nunez), 344

mechanics, principles of, in orthognathic surgery cases (Jacobs and Sinclair), 399

movement of incisor teeth, soft-tissue profile changes in American Chinese as result of, 437 (Abst.)

office, in-house computer for (Economides), 115

patients, longitudinal evaluation of system for self-monitoring plaque control effectiveness in, 434 (Abst.)

philosophy and technique, survey of current, 90 (Abst.)

thesis listings, 526

treatment, effect of extraction and, on dentoalveolar support (Kennedy et al.), 183

periodontal status following alignment of palatally impacted canine teeth (Becker, Kohavi, and Zilberman), 332

planning, soft-tissue cephalometric analysis and its use in (Holdaway), 1

surface distribution of enamel opacities following (Mizrahi), 323

Orthodontics, cephalometrics and, 435 (B. rev.)

current challenges and opportunities for, 264 (Guest editorial)

fundamental principles and practice, 176 (B. rev.)

principles and practice of, 436 (B. rev.)

retention and state of art in, 430 (Guest editorial)

textbook of, 268 (B. rev.)

Orthodontist-patient relations; on caring, 432 (Letter to editor)

Orthognathic surgery cases, principles of orthodontic mechanics in (Jacobs and Sinclair), 399

surgical-orthodontic correction of mandibular deficiency (Epker and Fish), 408

Orthopedic and orthodontic effects of maxillary traction, quantitative analysis of (Baumrind et al.), 384

coordination of dentofacial development in skeletal Class II malocclusion in conjunction with edgewise therapy (Bass), 361, 466

effects with "conventional" fixed orthodontic appliances (Edwards), 275

expansion and protraction of maxilla in left palate patients, 177 (Abst.)

late definitive correction of orofacial cleft (Kinnebrew and Kent), 104

Orthopedics, dentofacial; functional approach to treatment of skeletal open bite (Fränkel and Fränkel), 54

functional: "four pieces" and Class II treatment (Chateau et al.), 191

oral, for cleft lip and palate, 353 (B. rev.)

Osteotomy; surgical-orthodontic correction of mandibular deficiency (Epker and Fish), 408, 491

Osteotomy, maxillary, and bone graft; late definitive correction of orofacial cleft (Kinnebrew and Kent), 104

sagittal; surgical-orthodontic correction of mandibular deficiency (Epker and Fish), 491

Overjet and overbite in Class II, Division 1 malocclusion, vertical lip height and dental height changes in relation to reduction of (Abdel Kader), 260

Oxytalan fibers, occurrence of, in temporomandibular joint of rat (Booij and Markens), 166

## P

Pacific Coast Society of Orthodontists forty-seventh annual meeting, 92

Periodontal status following alignment of palatally impacted canine teeth (Becker, Kohavi, and Zilberman), 332

surgery, extraction space closure stability following canine retraction and, 89 (Abst.)

Periodontium, effect of experimental tooth movement on mechanical strength of, in rat mandibular first molar, 178 (Abst.)

Physical status and performance in childhood, manual of, 354 (B. rev.)

Plaque control effectiveness in orthodontic patients, longitudinal evaluation of system for self-monitoring, 434 (Abst.)

Practice announcements, 93, 359, 441

management; independent practitioner, 175 (B. rev.)

Prediction of short-term and long-term soft-tissue profile changes accompanying mandibular advancement surgery (Quast, Biggerstaff, and Haley), 29

of soft-tissue changes following orthognathic surgery; evaluation of soft-tissue changes resulting from Le Fort I maxillary surgery (Mansour, Burstone, and Legan), 37

Profile; curve of Spee in Stone Age man (Hitchcock), 248

integumental and skeletal, interrelationships; cephalometric analysis of black adults, 90 (Abst.)

soft-tissue, changes in American Chinese as result of orthodontic movement of incisor teeth, cephalometric and photographic assessment of, 437 (Abst.)

short-term and long-term changes accompanying mandibular advancement surgery (Quast, Biggerstaff, and Haley), 29

Propositions and hypotheses, 82 (Letters to editor)

Protrusion; down-up bite registration for functional appliances requiring protrusive and open jaw position (Sheridan), 427

Pterygoid muscle, lateral, function of inferior head of, 356 (Abst.)

## R

Radiographic images, measurability of (Tsao, Kazanoglu, and McCasland), 212; erratum, 520

Radiographs of early man, atlas of, 175 (B. rev.)

Radiography, dental panoramic, rare earth screen-film system for, 434 (Abst.)

Reitan, Kaare—80 years young, 358

Research biases, 351 (Guest editorial)

Resins, direct-bonding: "single-step" orthodontic bonding systems (Cross, Taylor, and Nunez), 344

Retention and state of art in orthodontics, 430 (Guest editorial)

Rhinitis, perennial, effect of intranasal corticosteroid (Budesonide) in children with asthma and; nasal respiratory resistance and head posture (Wenzel, Henriksen, and Melsen), 422

Roentgen stereometry with aid of metallic implants in hemifacial microsomia (Rune et al.), 231

Roentgenographic cephalometry, 77 (Guest editorial)

geometry of three-dimensional measurement from paired coplanar x-ray images (Baumrind, Moffitt, and Curry), 313

three-dimensional x-ray stereometry from paired coplanar images (Baumrind, Moffitt, and Curry), 292

## S

Screen-film system, rare earth, for dental panoramic radiography, 434 (Abst.)

- Skeletal Class II malocclusion, orthopedic coordination of dentofacial development in, in conjunction with edgewise therapy (Bass), 361
- open bite, functional approach to treatment of (Fränkel and Fränkel), 54
- Soft-tissue cephalometric analysis and its use in orthodontic treatment planning (Holdaway), 1
- changes resulting from Le Fort I maxillary surgery, evaluation of (Mansour, Burstone, and Legan), 37
- outcome of surgical and orthodontic manipulation of maxillofacial skeleton, projecting (Kinnebrew, Hoffman, and Carlton), 508
- profile changes, short-term and long-term, accompanying mandibular advancement surgery (Quast, Biggerstaff, and Haley), 29
- Splints, occlusal, 178 (Abst.)
- orthopedic; orthopedic coordination of dentofacial development in skeletal Class II malocclusion in conjunction with edgewise therapy (Bass), 361
- Stainless steel; in vitro release of nickel and chromium from simulated orthodontic appliances (Park and Shearer), 156
- Stereometry, roentgen, with aid of metallic implants in hemifacial microsomia (Rune et al.), 231
- three-dimensional x-ray, from paired coplanar images (Baumrind, Moffitt, and Curry), 292
- Stone Age man, curve of Spee in (Hitchcock), 248
- Stress analysis of maxilla and mandible while occluding, 523 (Abst.)
- Superimpositional assessment of treatment-induced changes in temporomandibular joint and mandibular symphysis (Baumrind et al.), 443
- Surgery, Le Fort I maxillary, evaluation of soft-tissue changes resulting from (Mansour, Burstone, and Legan), 37
- mandibular advancement, short-term and long-term soft-tissue profile changes accompanying (Quast, Biggerstaff, and Haley), 29
- maxillary impaction, nasal dimensional changes associated with, 437 (Abst.)
- orthognathic, cases, principles of orthodontic mechanics in (Jacobs and Sinclair), 399
- periodontal, extraction space closure stability following canine retraction and, 89 (Abst.)
- Surgical and orthodontic manipulation of maxillofacial skeleton, projecting soft-tissue outcome of (Kinnebrew, Hoffman, and Carlton), 508
- mandibular advancement and stability, 171 (Guest editorial)
- orthodontic correction of mandibular deficiency (Epker and Fish), 408, 491
- Synovial fluid from temporomandibular joints, 89 (Abst.)
- T**
- Teeth, incisor, orthodontic movement of, soft-tissue profile changes in American Chinese as result of, 437 (Abst.)
- Temporomandibular joint and mandibular symphysis, superimpositional assessment of treatment-associated changes in (Baumrind et al.), 443
- clinical and practice management, 353 (B. rev.)
- degenerative changes in, facial morphology and, 177 (Abst.)
- dysfunction, 521 (Guest editorial)
- internal derangement of, double contrast arthrography and, 88 (Abst.)
- myoarthopathy patients, oral physiotherapy for, 178 (Abst.)
- synovial fluid from, 89 (Abst.)
- of rat, occurrence of oxytalan fibers in (Booij and Markens), 166
- Three-dimensional x-ray stereometry from paired coplanar images (Baumrind, Moffitt, and Curry), 292
- Timing discs, soluble controlled-release glass, implanted into orthodontic appliances, preliminary report into development and use of, 87 (Abst.)
- Tongue activity, EMG approach to assessing, using miniature surface electrodes, 177 (Abst.)
- Tooth eruption, ectopic; ectopic eruption of maxillary first permanent molar: etiologic factors (Bjerklin and Kurol), 147
- movement, experimental, effect of, on mechanical strength of periodontium in rat mandibular first molar, 178 (Abst.)
- Traction, maxillary, quantitative analysis of orthodontic and orthopedic effects of (Baumrind et al.), 384
- Treatment-associated changes in temporomandibular joint and mandibular symphysis, superimpositional assessment of (Baumrind et al.), 443
- Class II; quantitative analysis of orthodontic and orthopedic effects of maxillary traction (Baumrind et al.), 384
- mixed-dentition, evaluation of cephalometric criteria of, 439 (Abst.)
- planning; American Board of Orthodontics case report (Campbell), 69
- projecting soft-tissue outcome of surgical and orthodontic manipulation of maxillofacial skeleton (Kinnebrew, Hoffman, and Carlton), 508
- Tufts Association of Orthodontists, 529
- V**
- "V" principle of bone growth, 267 (Letter to editor)
- Vertebra, first cervical, in rat, growth of (Vilmann), 160
- W**
- White spots; surface distribution of enamel opacities following orthodontic treatment (Mizrahi), 323
- Wits appraisal, longitudinal changes in ANB angle and (Bishara, Fahl, and Peterson), 133
- Wolfe, Deloit R., assumes AAO presidency, 440
- X**
- X-ray images, paired coplanar, geometry of three-dimensional measurement from (Baumrind, Moffitt, and Curry), 313
- stereometry, three-dimensional, from paired coplanar images (Baumrind, Moffitt, and Curry), 292

